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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,504	12/18/2000	Hans A. Lichtfuss	10004816-1	6944

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
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Fort Collins, CO 80527-2400

EXAMINER

LEE, CHEUKFAN

ART UNIT	PAPER NUMBER
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2622

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DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/741,504

Applicant(s)

LICHTFUSS, HANS A.

Examiner

Cheukfan Lee

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-16,18 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,8,17, and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Claims 1-20 are pending. Claim 1 is independent.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4, 6, 7, 9, 10, 14-16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (U.S. Patent No. 5,416,610) in view of Van Berkel et al. (U.S. Patent No. 5,349,174).

Regarding claim 1, Kikinis disclose a scanner employing external light that is illuminated from a display of a computer. The scanner (Fig. 3) comprises holding clips (21, 23, 25 and 27) for holding a photosensitive sheet (33) and a document to be scanned in place. An optional backing for the sheet (33) is provided to place over the document on the photosensitive sheet (33). This backing corresponds to the claimed "lid" which will be discussed later. The photosensitive sheet (33) is a sheet of flexible material to which has been applied a photosensitive coating.

Kikinis differs from the claimed invention in that the sheet (33) does not have an array of photodetector/shield unit as claimed. And because it is coated with sensitive coating, the sheet (33) is not understood to have a rear layer and a platen layer as claimed.

Van Berkel et al. discloses an image sensor with transparent capacitive region. According to Fig. 11, a substrate (2) of an image sensor (1) is removably mounted on top of a computer display device (30). A document to be sensed is placed on top of the image sensor (1) (col. 12, lines 10-20). The substrate of the image sensor (1) as explained with reference to Figs. 1-9 comprises a rear layer and a platen layer as claimed. That is, the sensor (1) has the rear layer of translucent plastic, an array of photodetector/shielding units having light passing slots between neighboring photodetector/photoshield units such that light rays from an external source (display) pass through a given slot in the array, impinge upon the document reflect from the document to a photodetector and converted to data signal, and a platen layer of translucent plastic.

The scanner screen of Van Berkel et al. having the rear layer, the array of photodetector/shield units, and the platen layer (on which the document is placed) corresponds to the photosensitive sheet (33) of Kikinis, though the sheet is just a photosensitive coated, flexible sheet.

The scanner of Van Berkel et al. does not have a lid to cover the document that is on the platen layer. However, the optional backing of Kikinis is discussed above, which corresponds to the claimed lid layer.

Since the substrate (2) is removably mounted on the display, the substrate (2) is an external light source-employing scanner as claimed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kikinis and Van Berkel et al. to provide a scanner having a scanner screen

Art Unit: 2622

holder the holding the scanner screen, and a scanner screen having four major structure components, i.e., the rear lay of translucent plastic, an array of photodetector/shielding units as claimed, a platen layer of translucent plastic (opposing the faces of the photodetector/shielding units) on which a document to be sensed is placed, and a lid layer (corresponding to Kikinis' optional backing). The motivation to combine is to provide a scanner that uses external light as light source and is able to retain the document in a stable condition with a lid layer or backing.

Regarding claim 3, both the scanner screen of Van Berkel et al. and the photosensitive sheet (33) of Kikinis are connected to an external processor (in the computer) (Van Berkel et al., col. 12, lines 55-60).

Regarding claim 4, both Van Berkel et al. and Kikinis disclose a CRT as the external light source for the scanner (col. 10, line 58 and col. 4, lines 22 and 45, respectively).

Regarding claim 6, the invention of Van Berkel et al. is directed to enabling an even greater proportion of the area of the image sensor to be transparent, and because electrical signals are inherently passed to the processor, a layer such as claimed is inherent in the image input section (2) of Van Berkel et al.

Regarding claim 7, the photosensitive sheet (33 in Kikinis) made Mylar has the properties as claimed.

For claim 9, see Van Berkel et al. with respect to color image sensing (col. 10, lines 25-30).

Regarding claim 10, since the scanner of Kikinis in view of Van Berkel et al. is removable mounted to the computer display as discussed above, it is inherent that the display (CRT) provides a menu screen as claimed.

Regarding claim 14, the scanner screen discussed for claim 1 has a flat surface.

Regarding claim 15, since Kikinis and Van Berkel et al. both disclose flexible photosensitive sheet (33) and flexible transparent substrate of the image sensor to fit the conventional display surfaces (Van Berkel et al, col. 10, lines 56-62), the scanner screen of Kikinis in view of Van Berkel et al. is a flexible one and has a curve surface depending on the curvature of the display screen it is associated with.

Regarding claim 16, the scanner screen discussed above is held in a vertical position in front of a display screen such as a CRT.

Regarding claim 18, as discussed for claim 1 above with respect to the lid, the obvious scanner screen has a slot, which may be a very small slot (referring to the discussion of the optional backing of Kikinis), that serves to hold the document in substantially vertical orientation in front of a CRT.

Regarding claim 20, the three layers discussed for claim 1 above, i.e., the rear layer, platen layer and lid layer, are all made of flexible plastic material.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (U.S. Patent No. 5,416,610) in view of Van Berkel et al. (U.S. Patent No. 5,349,174) as applied to claim 1 above, and further in view of Itoh et al. (U.S. Patent o. 5,585,817).

Regarding claim 5, Kikinis in view of Van Berkel et al. differs from the claimed invention in that the scanner does not employ a lens device.

However, the necessity of employing a lens device in a scanner that is positioned a certain distance away from the display screen is suggested by Itoh et al. No lens is needed when an image input section is disposed right next to the display screen (col. 5, lines 50-61). The otherwise is also suggested, i.e., when the image input section is removable or a separate unit from the display screen, there exists a certain distance between the display screen and the input section. A lens device focuses the external light onto the document.

Since the image input substrate (2) of Van Berkel et al. is removably mounted instead of being an integral part of the display, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a lens device in the scanner of Kikinis in view of Van Berkel et al. to focus external light onto the document, as suggested by Itoh et al.

6. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (U.S. Patent No. 5,416,610) in view of Van Berkel et al. (U.S. Patent No. 5,349,174) as applied to claim 1 above, and further in view of well known art.

Claim 11 recites "the lid layer is hingedly attached to the scanner screen". Claim 13 recites "the scanner screen is connected to the scanner screen holder by a hinge mechanism". As discussed for claim 1 above, In Kikinis, the scanner (Fig. 3) comprises holding clips (21, 23, 25 and 27) for holding a photosensitive sheet (33) and a document

Art Unit: 2622

to be scanned in place, an optional backing for the sheet (33) is provided to place over the document on the photosensitive sheet (33). This backing corresponds to the claimed "lid" (col. 5, lines 30-33).

Kikinis does not disclose that the backing (lid) is hingedly attached to the scanner screen. The examiner took Official Notice of the fact that the hingedly attaching two components of is a well known concept for avoiding loose components. In the case of Kikinis (in view of Van Berkel et al.), the advantage of having the backing or lid hingedly attached to the scanner screen would have been recognized by one of ordinary skill in the art, which is to avoid the backing from fall off the scanner screen. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to hingedly attach the backing or lid layer of Kikinis in view of Van Berkel et al. to the scanner screen or scanner screen holder to prevent the backing or lid from falling off.

Claim 12 recites "a mechanical connector for securing said screen to a computer monitor." Kikinis discloses only simple holding means such as clips (21, 23, 25 and 27). Though none of Kikinis and Van Berkel et al. teaches a mechanical connector as claimed, the examiner took Official Notice of the fact that such mechanical connector for securing a relatively thin device to a computer monitor is widely used in the art of ancillary device support associated with computer monitor or display screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a mechanical connector to secure the relatively thin scanner screen of Kikinis



in view of Berkel et al. to stabilize the scanner screen during an image scanning or sensing operation.

Claim 11 recites "the lid layer is hingedly attached to the scanner screen". The obvious scanner of Kikinis in view of Van Berkel et al. differs from the claimed invention in that the obvious scanner does not comprise a hinge. As discussed for claim 1 above, the (optional) backing of Kikinis (col. 5, line 32) corresponds to the claimed lid layer. The examiner took Official Notice of the fact that hinges for attaching to parts to avoid loosing one part from the other are well known and widely used. One of ordinary skill in the art would have realized the benefit of hingedly attaching the backing (of Kikinis) or lid layer to the scanner screen of the obvious scanner, which is to avoid loosing one of the lid layer and scanner screen from the other. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a known hinge to hingedly attach the backing or lid layer to the scanner screen of Kikinis in view of Van Berkel et al. in order to secure the lid layer to the scanner screen as claimed.

7. Claims 2, 8, 17, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for allowance:

Claim 2 recites "a shield component of a photodetector/shield unit has a channel configuration in which a photodetector resides". This channel configuration is not found

Art Unit: 2622

in any of the prior art references of record. This limitation in combination with other limitations of claim 1 upon which claim 2 depends is not taught by the prior art of record, alone or in combination.

Claim 8 recites the "scanner of claim 1 further comprising electrical circuitry for adjusting said light source to provide a desired light color". Though electrical circuitry for adjusting the light source within a display monitor is well known, the fact that the electrical circuitry is part of the scanner and the light source is part of the display, is not taught by any prior art reference of record.

Claim 17 would be allowable because the prior art does not teach that the scanner holder has channels in which a roller wheel can turn and thereby guide the scanner screen into and out of the scanner screen holder as claimed.

Claim 19 would be allowable because none of the references applied above and teaches that the three layers, i.e., the rear layer, platen layer and lid layer, are made of rigid plastic materials.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

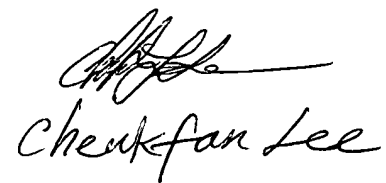
Art Unit: 2622

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (703) 305-4867. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee  
March 16, 2005



Cheukfan Lee